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09/888,316	06/22/2001	Thomas R. Volpert JR.	290147US8	9555
22850 7590 05/23/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
			EXAMINER HENNING, MATTHEW T	
			ART UNIT 2131	PAPER NUMBER
			NOTIFICATION DATE 05/23/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

09/888,316

Applicant(s)

VOLPERT, THOMAS R.

Examiner

Matthew T. Henning

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-10,21-23,25-45,47-60 and 62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-10,21-23,25-45,47-60 and 62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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1 This action is in response to the communication filed on 2/26/2007.

2 **DETAILED ACTION**

3 *Response to Arguments*

4 Applicant's arguments filed 2/26/2007 have been fully considered but they are not
5 persuasive.

6 Regarding the applicants' argument that De Maine does not disclose generating a position
7 code using an identified control code for determining positions of each of the 2^n different
8 configurations of n bits in the input data string, the examiner does not find the argument
9 persuasive. The examiner first points out that the prior art rejections of the claims do not rely
10 upon De Maine as teaching identifying a control code. De Maine does, however, disclose an
11 "order code" (LEXICON) which is used in cooperation with a position code routine
12 (SANPAKC-Type 2) for determining positions of each of the 2^n different configurations of n
13 bits in the input data string (See De Maine Col. 101 Paragraph 3– Col. 103 Paragraph 1). Cellier
14 teaches the use of a code index and control codes, as shown below. As such, the examiner does
15 not find the argument persuasive.

16 Regarding the applicants' argument that De Maine does not disclose the comparison of
17 2^n different configurations of the input data string with the associated 2^n bit configurations of
18 the "order code" (LEXICON), the comparisons resulting in output values dictated by the position
19 code routine which defines the generated position code, the examiner does not find the argument
20 persuasive. De Maine clearly teaches comparing the bytes of the input with the Type 2 codes
21 which are identified in the LEXICON, for example in Col. 101 Paragraph 4. As such, the
22 examiner does not find the argument persuasive.

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1 Claims 1, 3, 5, 8-10, 21-23, 25-26, 29-33-40, 44-45, 47-55, 59, 60, and 62 are rejected
2 under 35 U.S.C. 103(a) as being unpatentable over De Maine et al. (US Patent Number
3 3,656,178) hereinafter referred to as De Maine, and further in view of Cellier et al. (US Patent
4 Number 5,884,269) hereinafter referred to as Cellier, and further in view of Witten et al. ("On
5 the Privacy Afforded by Adaptive Text Compression") hereinafter referred to as Witten.

6 Regarding claim 1, De Maine disclosed a method of encrypting an input data string
7 including a plurality of bits of binary data with a processing device communicatively coupled to
8 a memory having executable instructions stored therein which cause the device to implement a
9 method of encryption, the method comprising: receiving an input data string for encryption at the
10 processing device (See De Maine Col. 91 Lines 67-73); determining an order in which to query
11 the presence of each of 2^n different configurations of n bits within an input data string (See De
12 Maine Col. 91 Lines 67-74, 256 Byte Table); generating an order code associated with the
13 determined order (See De Maine Col. 92 Lines 5-10, Type 2 codes); generating a position code
14 using the order code in cooperation with a position code routine (SANPAKC Type 2) associated
15 with the order code to determine positions of each of the 2^n different configurations of n bits in
16 an input data string by comparing the 2^n different configurations of the input data string with the
17 associated 2^n different configurations of the order code, the comparisons resulting in output
18 values dictated by the position code routine which defines the generated position code (See De
19 Maine Col. 92 Lines 31-39, Bit Map); and combining the order code and the generated position
20 code to form an encrypted data string (See De Maine Col. 92 Lines 40-44) (See also De Maine
21 Col. 101 Paragraph 3 – Col. 103 Paragraph 1), however, De Maine did not specifically disclose
22 providing a control code index that is defined prior to encryption at the processing device, the

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1 control code index including a plurality of control codes each defining respective orders of n bit
2 combinations of binary data, or identifying a control code associated with the determined order
3 code using the control code index.

4 Cellier teaches that in a coding method which involves the use of a coding table, a table
5 dictionary (control code index) including a plurality of tables should be incorporated and table
6 select (control code), for identifying which table was used in the coding method, should be
7 chosen from the index and included with the encoded data (See Cellier Col. 4 Line 46 – Col. 5
8 Line 55 and Col. 13 Lines 24-33).

9 Witten teaches that in a compression system which uses frequency analysis to adapt to
10 the input text for optimal compression, an initial model, perhaps randomly selected, should be
11 used as a key in order to secure the data being compressed from being decompressed without
12 knowing the initial model, or key (See Witten Section 7).

13 It would have been obvious to the ordinary person skilled in the art at the time of
14 invention to employ the teachings of Cellier in the coding system of De Maine by providing a
15 dictionary of LEXICON tables (See De Maine Col. 91 Lines 67-74) which are identified using a
16 table select (control code) and including the table select corresponding to the determined
17 LEXICON table with the encoded data in order to allow the decoder to identify which
18 LEXICON table was used for encoding. This would have been obvious because the ordinary
19 person skilled in the art would have been motivated to provide a highly efficient and compact
20 way of mapping the statistics of the input string in order to identify the proper LEXICON table
21 to the decoder.

1 It further would have been obvious to the ordinary person skilled in the art at the time of
2 invention to employ the teachings of Witten in the system of De Maine by using the table select
3 as a key, which is kept secret. This would have been obvious because the ordinary person skilled
4 in the art would have been motivated to secure the compressed data against illicit decompression.

5 Regarding claim 21, De Maine disclosed a method for encrypting an input data string
6 including a plurality of bits of binary data (See De Maine Col. 2 Paragraph 1), the method
7 comprising: receiving an input data string for encryption (See De Maine Col. 91 Lines 67-74);
8 determining an order in which to query the presence of each of 2^n different configurations of n
9 bits within an input data string (See De Maine Col. 91 Lines 67-74, 256 Byte Table); generating
10 an order code associated with the determined order (See De Maine Col. 92 Lines 5-10, Type 2
11 codes); generating a position code using the order code in cooperation with a position code
12 routine associated with the order code to determine positions of each of the 2^n different
13 configurations of n bits in an input data string by comparing the 2^n different configurations of the
14 input data string with the associated 2^n different configurations of the identified control code, the
15 comparisons resulting in output values dictated by the position code routine which defines the
16 generated position code (See De Maine Col. 92 Lines 31-39, Bit Map); and combining the order
17 code and the generated position code to form an encrypted data string (See De Maine Col. 92
18 Lines 40-44), however, De Maine did not specifically disclose providing a control code index
19 that is defined prior to encryption at the processing device, the control code index including a
20 plurality of control codes each defining respective orders of n bit combinations of binary data, or
21 identifying a control code associated with the determined order code using the control code
22 index.

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1 Cellier teaches that in a coding method which involves the use of a coding table, a table
2 dictionary (control code index) including a plurality of tables should be incorporated and table
3 select (control code), for identifying which table was used in the coding method, should be
4 chosen from the index and included with the encoded data (See Cellier Col. 4 Line 46 – Col. 5
5 Line 55 and Col. 13 Lines 24-33).

6 Witten teaches that in a compression system which uses frequency analysis to adapt to
7 the input text for optimal compression, an initial model, perhaps randomly selected, should be
8 used as a key in order to secure the data being compressed from being decompressed without
9 knowing the initial model, or key (See Witten Section 7).

10 It would have been obvious to the ordinary person skilled in the art at the time of
11 invention to employ the teachings of Cellier in the coding system of De Maine by providing a
12 dictionary of LEXICON tables (See De Maine Col. 91 Lines 67-74) which are identified using a
13 table select (control code) and including the table select corresponding to the determined
14 LEXICON table with the encoded data in order to allow the decoder to identify which
15 LEXICON table was used for encoding. This would have been obvious because the ordinary
16 person skilled in the art would have been motivated to provide a highly efficient and compact
17 way of mapping the statistics of the input string in order to identify the proper LEXICON table
18 to the decoder.

19 It further would have been obvious to the ordinary person skilled in the art at the time of
20 invention to employ the teachings of Witten in the system of De Maine by using the table select

1 as a key, which is kept secret. This would have been obvious because the ordinary person skilled
2 in the art would have been motivated to secure the compressed data against illicit decompression.

3 Regarding claim 23, De Maine disclosed a computer readable medium including
4 computer program instructions that cause a computer to implement a method of encrypting an
5 input data string, including a plurality of bits of binary data (See De Maine Col. 2 Paragraph 1),
6 the method comprising: receiving an input data string for encryption (See De Maine Col. 91
7 Lines 67-74); determining an order in which to query the presence of each of 2^n different
8 configurations of n bits within an input data string (See De Maine Col. 91 Lines 67-74, 256 Byte
9 Table); generating an order code associated with the determined order (See De Maine Col. 92
10 Lines 5-10, Type 2 codes); generating a position code using the order code in cooperation with a
11 position code routine associated with the order code to determine positions of each of the 2^n
12 different configurations of n bits in an input data string by comparing the 2^n different
13 configurations of the input data string with the associated 2^n different configurations of the
14 identified control code, the comparisons resulting in output values dictated by the position code
15 routine which defines the generated position code (See De Maine Col. 92 Lines 31-39, Bit Map);
16 and combining the order code and the generated position code to form an encrypted data string
17 (See De Maine Col. 92 Lines 40-44), however, De Maine did not specifically disclose providing
18 a control code index that is defined prior to encryption at the processing device, the control code
19 index including a plurality of control codes each defining respective orders of n bit combinations
20 of binary data, or identifying a control code associated with the determined order code using the
21 control code index.

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1 Cellier teaches that in a coding method which involves the use of a coding table, a table
2 dictionary (control code index) including a plurality of tables should be incorporated and table
3 select (control code), for identifying which table was used in the coding method, should be
4 chosen from the index and included with the encoded data (See Cellier Col. 4 Line 46 – Col. 5
5 Line 55 and Col. 13 Lines 24-33).

6 Witten teaches that in a compression system which uses frequency analysis to adapt to
7 the input text for optimal compression, an initial model, perhaps randomly selected, should be
8 used as a key in order to secure the data being compressed from being decompressed without
9 knowing the initial model, or key (See Witten Section 7).

10 It would have been obvious to the ordinary person skilled in the art at the time of
11 invention to employ the teachings of Cellier in the coding system of De Maine by providing a
12 dictionary of LEXICON tables (See De Maine Col. 91 Lines 67-74) which are identified using a
13 table select (control code) and including the table select corresponding to the determined
14 LEXICON table with the encoded data in order to allow the decoder to identify which
15 LEXICON table was used for encoding. This would have been obvious because the ordinary
16 person skilled in the art would have been motivated to provide a highly efficient and compact
17 way of mapping the statistics of the input string in order to identify the proper LEXICON table
18 to the decoder.

19 It further would have been obvious to the ordinary person skilled in the art at the time of
20 invention to employ the teachings of Witten in the system of De Maine by using the table select

1 as a key, which is kept secret. This would have been obvious because the ordinary person skilled
2 in the art would have been motivated to secure the compressed data against illicit decompression.

3 Regarding claim 62, De Maine disclosed an electronic device for encrypting an input data
4 string, including a plurality of bits of binary data, comprising: a processor configured to receive
5 an input data string for encryption (See De Maine Col. 91 Lines 67-73); determining upon
6 reception of the input data string, an order in which to query the presence of each of two $2n$
7 different configurations of n bits within an input data string (See De Maine Col. 91 Lines 67-74,
8 256 Byte Table), and generates an order code associated with the determined order (See De
9 Maine Col. 92 Lines 5-10, Type 2 codes), the processor generating a position code, using the
10 order code in cooperation with a position code routine associated with the order code to
11 determine positions of each of the two $2n$ different configurations of n bits in the input data
12 string by comparing the $2n$ different configurations of the input data string with the associated $2n$
13 bit configurations of the identified control code, the comparisons resulting in output values
14 dictated by the position code routine which defines the generated position code (See De Maine
15 Col. 92 Lines 31-39, Bit Map) to combine the order code and generated the position code to form
16 an encrypted data string (See De Maine Col. 92 Lines 40-44), however, De Maine did not
17 specifically disclose providing a control code index that is defined prior to encryption at the
18 processing device, the control code index including a plurality of control codes each defining
19 respective orders of n bit combinations of binary data, or identifying a control code associated
20 with the determined order code using the control code index.

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1 Cellier teaches that in a coding method which involves the use of a coding table, a table
2 dictionary (control code index) including a plurality of tables should be incorporated and table
3 select (control code), for identifying which table was used in the coding method, should be
4 chosen from the index and included with the encoded data (See Cellier Col. 4 Line 46 – Col. 5
5 Line 55 and Col. 13 Lines 24-33).

6 Witten teaches that in a compression system which uses frequency analysis to adapt to
7 the input text for optimal compression, an initial model, perhaps randomly selected, should be
8 used as a key in order to secure the data being compressed from being decompressed without
9 knowing the initial model, or key (See Witten Section 7).

10 It would have been obvious to the ordinary person skilled in the art at the time of
11 invention to employ the teachings of Cellier in the coding system of De Maine by providing a
12 dictionary of LEXICON tables (See De Maine Col. 91 Lines 67-74) which are identified using a
13 table select (control code) and including the table select corresponding to the determined
14 LEXICON table with the encoded data in order to allow the decoder to identify which
15 LEXICON table was used for encoding. This would have been obvious because the ordinary
16 person skilled in the art would have been motivated to provide a highly efficient and compact
17 way of mapping the statistics of the input string in order to identify the proper LEXICON table
18 to the decoder.

19 It further would have been obvious to the ordinary person skilled in the art at the time of
20 invention to employ the teachings of Witten in the system of De Maine by using the table select

1 as a key, which is kept secret. This would have been obvious because the ordinary person skilled
2 in the art would have been motivated to secure the compressed data against illicit decompression.

3 Regarding claims 3 and 25 De Maine, Cellier, and Witten disclosed determining an order
4 comprises selecting a predetermined order (See De Maine Col. 91, 256 Byte Table and the
5 rejection of claim 1 above).

6 Regarding claims 5, 22, and 26, De Maine, Cellier, and Witten disclosed dividing the
7 input data string into a plurality of blocks of data (See De Maine Col. 92 Lines 31-38).

8 Regarding claim 8, and 30, De Maine, Cellier, and Witten disclosed generating a plurality
9 of block codes associated with a plurality of blocks of data, each block code indicating the
10 number of bits within the associated block of data (See De Maine Col. 101 Lines 45-52).

11 Regarding claim 9, and 31, De Maine, Cellier, and Witten disclosed combining the each
12 of the plurality of block codes with the control code and the position code for the associated
13 block of data (See De Maine Col. 101 Lines 45-52 and the rejection of claim 1 above).

14 Regarding claim 10, and 32, De Maine, Cellier, and Witten disclosed that determining an
15 order further comprises determining an order based on the frequencies of the 2^n combinations of
16 the n bits of the input data string (See De Maine Col. 101 Lines 20-25).

17 Regarding claims 29, and 50, De Maine, Cellier, and Witten disclosed that the computer
18 readable code for determining an order further comprises computer readable code for
19 determining a first order associated with a first block of data and determining a second order

1 associated with a second block of data wherein the first order is different than the second order
2 (See De Maine Col. 91 Lines 67-74).

3 Regarding claim 33, De Maine, Cellier, and Witten disclosed that the computer readable
4 code for determining an order further comprises computer readable code for determining an
5 order in which to query the presence of each of 2^n different configurations of n bits based on an
6 analysis of the input data (See De Maine Col. 91 Lines 67-74).

7 Regarding claims 34 and 48, De Maine, Cellier, and Witten disclosed randomly selecting
8 the control code via a random number generator.

9 Regarding claims 35, and 49, De Maine, Cellier, and Witten disclosed generating the
10 control code based on a rule set (See the rejection of claim 1 above and De Maine Col. 91 Lines
11 67-74).

12 Regarding claims 36 and 51, De Maine, Cellier, and Witten disclosed determining
13 whether to compress the input data string simultaneously as it is encrypted (See De Maine Col.
14 101 Lines 20-28).

15 Regarding claims 37 and 52, De Maine, Cellier, and Witten disclosed dividing the input
16 data string into n -bit sequences (See De Maine Col. 91 Lines 67-74); comparing each of the 2^n
17 different configurations of n bits with each of the n -bit sequences (See De Maine Col. 91 Lines
18 67-74); determining the frequency of each of the 2^n different configurations appearing in the
19 input data string (See De Maine Col. 91 Lines 67-74); determining whether a specific
20 relationship exists between values of the frequencies of each of the individual 2^n different

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1 configurations appearing in the input data string wherein the existence of the specific
2 relationship is indicative of the presence of a characteristic within the input data string and
3 wherein the presence of the characteristic determines that the input data string is compressed
4 simultaneously as it is encrypted (See De Maine Col. 101 Lines 20-25); selecting a first position
5 code routine associated with the determined order when the specific relationship exists, the first
6 position code routine being operable to encrypt and compress the input data string (See De
7 Maine Col. 101 Lines 20-25 and Col. 92 Paragraphs 1-2); and selecting a second position code
8 routine associated with the determined order when the specific relationship does not exist, the
9 second position code routine being operable to encrypt the input data string without any
10 compression (See De Maine Col. 101 Lines 20-25 and Col. 92 Paragraphs 1-2).

11 Regarding claims 38 and 53, De Maine, Cellier, and Witten disclosed that the
12 determining the order in which to query the presence of each of 2^n different configurations of n
13 bits of binary data within an input data string comprises computer readable code for determining
14 the order in which to query the presence of each of 2^2 different configurations of 2 bits within an
15 input data string (See De Maine Col. 91 Lines 47-48).

16 Regarding claims 39 and 54, De Maine, Cellier, and Witten disclosed dividing the input
17 data string into n bit sequences (See De Maine Col. 91 Lines 67-74); comparing each of the 2^n
18 different configuration of n bits of binary data with each of the n bit sequences of the input data
19 string (See De Maine Col. 91 Lines 67-74); determining a first number representative of the
20 number of times the most frequently occurring 2^n configuration appears in the input string;
21 determining a second number representative of the number of times the second most frequently

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1 occurring 2^n configuration appears in the input string; determining a third number representative
2 of the number of times the third most frequently occurring 2^n configuration appears in the input
3 string determining a fourth number representative of the number of times the fourth most
4 frequently occurring 2^n configuration appears in the input string (See De Maine Col. 91 Lines
5 67-74); determining an order in which to query the presence of each of 2^n different
6 configurations of n bits within the input data string based on a sequence of 2 bit combinations,
7 the determined order beginning with a most occurring frequency and ending with a least
8 occurring frequency (See De Maine Col. 92 Paragraph 1) selecting a first position code routine
9 associated with the determined order when the first number is greater than the sum of the third
10 number and the fourth number, the first position code routine being operable to encrypt and
11 compress the input data string (See De Maine Col. 92 Paragraphs 1-2 and Col. 101 Lines 20-27);
12 and selecting a second position code routine associated with the determined order when the first
13 number is not greater than the sum of the third number and the fourth number, the second
14 position code routine being operable to encrypt the input data string without any compression
15 (See De Maine Col. 92 Paragraphs 1-2 and Col. 101 Lines 20-27).

16 Regarding claims 40 and 55, De Maine, Cellier, and Witten disclosed that identifying a
17 control code associated with the determined order, further comprises: identifying a first control
18 code associated with the determined order when the first position code routine is selected; and
19 identifying a second control code associated with the determined order when the second position
20 code routine is selected wherein the first control code is different than the second control code
21 (See De Maine Col. 92 Paragraphs 1-2).

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1 Regarding claims 44 and 59, De Maine, Cellier, and Witten disclosed selecting a default
2 order (See De Maine Col. 91 Lines 67-74 and the rejection of claim 1 above).

3 Regarding claims 45 and 60, De Maine, Cellier, and Witten disclosed determining an
4 order based on the relative frequencies of the combinations of n bits (See De Maine Col. 91
5 Lines 67-74).

6 Regarding claim 47, De Maine, Cellier, and Witten disclosed determining the order based
7 on an analysis of the input data string (See De Maine Col. 91 Lines 67-74).

8
9 Claims 6-7, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over De
10 Maine, Cellier, and Witten as applied to claims 5, and 26 respectively, and further in view of
11 Shimizu et al. (US Patent Number 6,772,343) hereinafter referred to as Shimizu.

12 De Maine, Cellier, and Witten disclosed blocking the input data into block sizes of a
13 certain range (See De Maine Col. 92 Lines 31-38) but failed to disclose determining the size of
14 the blocks randomly or according to a rule set.

15 Shimizu teaches that in a block encoding system, generating each block size randomly
16 makes illicit access of the data more difficult and makes the cryptosystem more robust (See
17 Shimizu Col. 5 Lines 9-18). Shimizu further teaches that the random sizes are generated
18 mathematically using a seed (See Shimizu Col. 15 Paragraphs 3-7).

19 It would have been obvious to the ordinary person skilled in the art at the time of
20 invention to employ the teachings of Shimizu in the invention of De Maine, Cellier, and Witten
21 to mathematically generate random block lengths. This would have been obvious because the

1 ordinary person skilled in the art would have been motivated to provide the added security of
2 random block lengths to the compressed data.

3
4 Claims 41-42, and 56-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over
5 De Maine, Cellier, and Witten as applied to claim 1 above, and further in view of Weiss (US
6 Patent Number 5,479,512).

7 De Maine, Cellier, and Witten disclosed compressing input data (See De Maine Cols. 91-
8 92), but failed to disclose re-encrypting the data after the compression was performed.

9 Weiss teaches that after compression is performed, the compressed data should be
10 XORed with a key, in small blocks at a time (See Weiss Col. 5 Paragraphs 4-5 and Col. 6
11 Paragraph 3 and Fig. 3A).

12 It would have been obvious to the ordinary person skilled in the art at the time of
13 invention to employ the teachings of Weiss in the compression system of De Maine, Cellier, and
14 Witten by XORing the coded data with a key in small blocks at a time. This would have been
15 obvious because the ordinary person skilled in the art would have been motivated to protect the
16 data from unauthorized observing.

17 Claims 41, 43, 56, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over
18 De Maine, Cellier, and Witten as applied to claim 1 above, and further in view of Butler et al.
19 (US Patent Number 5,861,887) hereinafter referred to as Butler.

20 De Maine, Cellier, and Witten disclosed compressing input data (See De Maine Cols. 91-
21 92), but failed to disclose re-encrypting the data after compression was performed.

1 Butler teaches that compression should be repeated as many times as necessary in order
2 to make the data being compressed sufficiently small (See Butler Col. 3 Paragraph 2).

3 It would have been obvious to the ordinary person skilled in the art at the time of
4 invention to employ the teachings of Butler in the compression system of De Maine, Cellier, and
5 Witten by repeating the compression on the coded output as many times as necessary to get the
6 output to be sufficiently small. This would have been obvious because the ordinary person
7 skilled in the art would have been motivated to provide more efficient storage of the audio data.

8
9
10 *Conclusion*

11 Claims 1, 3, 5-10, 21-23, 25-45, 47-60, and 62 have been rejected.

12 **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time
13 policy as set forth in 37 CFR 1.136(a).

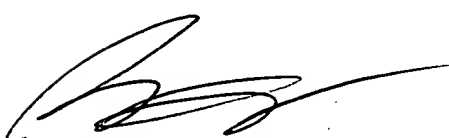
14 A shortened statutory period for reply to this final action is set to expire THREE
15 MONTHS from the mailing date of this action. In the event a first reply is filed within TWO
16 MONTHS of the mailing date of this final action and the advisory action is not mailed until after
17 the end of the THREE-MONTH shortened statutory period, then the shortened statutory period
18 will expire on the date the advisory action is mailed, and any extension fee pursuant to 37
19 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,
20 however, will the statutory period for reply expire later than SIX MONTHS from the mailing
21 date of this final action.

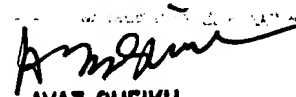
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew T. Henning whose telephone number is (571) 272-3790. The examiner can normally be reached on M-F 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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Assistant Examiner
Art Unit 2131
5/15/2007


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